

CONTENTS

	PAGE
PHOTOCHEMISTRY OF POLYOXOMETALLATES OF MOLYBDENUM AND TUNGSTEN AND/OR VANADIUM. By E. Papaconstantinou	1
THE CHEMISTRY OF NITRILE SULPHIDES. By R. Michael Paton	33
STRUCTURAL ISOMERIZATION IN DNA: THE FORMATION OF CRUCIFORM STRUCTURES IN SUPERCOILED DNA MOLECULES. By David M. J. Lilley	53
RECENT DEVELOPMENTS IN THE SYNTHESIS OF <i>myo</i> -INOSITOL PHOSPHATES. By David C. Billington	83
SULPHONYL TRANSFER REACTIONS. By Isobel M. Gordon, H. Maskill, and Marie-Françoise Ruasse	123
SYNTHETIC APPLICATIONS OF ORGANOTRANSITION-METAL REDOX REACTIONS. By Neil G. Connolly	153
CENTENARY LECTURE. CHEMICAL MULTIPLICATION OF CHIRALITY: SCIENCE AND APPLICATIONS. By R. Noyori	187
REACTION BRANCHING AND EXTREME KINETIC ISOTOPE EFFECTS IN THE STUDY OF REACTION MECHANISMS. By Alf Thibblin and Per Ahlberg	209
STRUCTURAL PROPERTIES OF ORGANOCOBALT COENZYME B ₁₂ MODELS. By L. Randaccio, N. Bresciani Pahor, E. Zangrando, and L. E. Marzilli	225
OXIDATIVE COUPLING OF METHANE USING OXIDE CATALYSTS. By G. J. Hutchings, M. S. Scurrell, and J. R. Woodhouse	251
HETEROGENEOUS REDOX CATALYSTS FOR OXYGEN AND CHLORINE EVOLUTION. By Andrew Mills	285
ULTRAVIOLET PHOTOLELECTRON STUDIES OF UNSTABLE MOLECULES WITH RELEVANCE TO SYNTHESIS, QUANTUM CHEMISTRY, AND SPECTROSCOPY. By Nicholas P. C. Westwood	317
RHÔNE-POULENC LECTURE. THE ORIGIN OF THE SPECIFICITY IN THE RECOGNITION OF OLIGOSACCHARIDES BY PROTEINS. By R. U. Lemieux FRS	347
BIOSYNTHESIS OF PYRROLIZIDINE ALKALOIDS. By David J. Robins	375
MELDOLA MEDAL LECTURE. REDOX RESPONSIVE MACROCYCLIC RECEPTOR MOLECULES CONTAINING TRANSITION METAL REDOX CENTRES. By Paul D. Beer	409
CHEMISORPTION AND REACTION PATHWAYS AT METAL SURFACES: THE ROLE OF SURFACE OXYGEN. By M. W. Roberts	451
THE ISOKINETIC RELATIONSHIP. By W. Linert and R. F. Jameson	477
1989 Indexes	507

CONTENTS

	PAGE
PHOTOCHEMISTRY OF POLYOXOMETALLATES OF MOLYBDENUM AND TUNGSTEN AND/OR VANADIUM. By E. Papaconstantinou	1
THE CHEMISTRY OF NITRILE SULPHIDES. By R. Michael Paton	33
STRUCTURAL ISOMERIZATION IN DNA: THE FORMATION OF CRUCIFORM STRUCTURES IN SUPERCOILED DNA MOLECULES. By David M. J. Lilley	53
RECENT DEVELOPMENTS IN THE SYNTHESIS OF <i>myo</i> -INOSITOL PHOSPHATES. By David C. Billington	83
SULPHONYL TRANSFER REACTIONS. By Isobel M. Gordon, H. Maskill, and Marie-Françoise Ruasse	123
SYNTHETIC APPLICATIONS OF ORGANOTRANSITION-METAL REDOX REACTIONS. By Neil G. Connolly	153
CENTENARY LECTURE. CHEMICAL MULTIPLICATION OF CHIRALITY: SCIENCE AND APPLICATIONS. By R. Noyori	187
REACTION BRANCHING AND EXTREME KINETIC ISOTOPE EFFECTS IN THE STUDY OF REACTION MECHANISMS. By Alf Thibblin and Per Ahlberg	209
STRUCTURAL PROPERTIES OF ORGANOCOBALT COENZYME B ₁₂ MODELS. By L. Randaccio, N. Bresciani Pahor, E. Zangrando, and L. E. Marzilli	225
OXIDATIVE COUPLING OF METHANE USING OXIDE CATALYSTS. By G. J. Hutchings, M. S. Scurrell, and J. R. Woodhouse	251
HETEROGENEOUS REDOX CATALYSTS FOR OXYGEN AND CHLORINE EVOLUTION. By Andrew Mills	285
ULTRAVIOLET PHOTOLELECTRON STUDIES OF UNSTABLE MOLECULES WITH RELEVANCE TO SYNTHESIS, QUANTUM CHEMISTRY, AND SPECTROSCOPY. By Nicholas P. C. Westwood	317
RHÔNE-POULENC LECTURE. THE ORIGIN OF THE SPECIFICITY IN THE RECOGNITION OF OLIGOSACCHARIDES BY PROTEINS. By R. U. Lemieux FRS	347
BIOSYNTHESIS OF PYRROLIZIDINE ALKALOIDS. By David J. Robins	375
MELDOLA MEDAL LECTURE. REDOX RESPONSIVE MACROCYCLIC RECEPTOR MOLECULES CONTAINING TRANSITION METAL REDOX CENTRES. By Paul D. Beer	409
CHEMISORPTION AND REACTION PATHWAYS AT METAL SURFACES: THE ROLE OF SURFACE OXYGEN. By M. W. Roberts	451
THE ISOKINETIC RELATIONSHIP. By W. Linert and R. F. Jameson	477
1989 Indexes	507

